PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing *(day/month/year)*	19.08.2004
Applicant's or agent's file reference: P-2002-016WO	**IMPORTANT NOTIFICATION**

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/DK 03/00395	13.06.2003	10.07.2002

Applicant: OTICON A/S et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international preliminary examining authority:

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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P-2002-016WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/DK 03/00395	International filing date *(day/month/year)* 13.06.2003	Priority date *(day/month/year)* 10.07.2002
International Patent Classification (IPC) or both national classification and IPC H04R25/00		
Applicant OTICON A/S et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the opinion
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
29.01.2004	19.08.2004
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Baumann, M Telephone No. +49 89 2399-2447

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/DK 03/00395

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:

Description, Pages

1-5 as originally filed

Claims, Numbers

1-5 as originally filed

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).

   ☐ the language of publication of the international application (under Rule 48.3(b)).

   ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   ☐ contained in the international application in written form.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority in written form.

   ☐ furnished subsequently to this Authority in computer readable form.

   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   ☐ the description, pages:

   ☐ the claims, Nos.:

   ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-5
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-5
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-5
	No:	Claims	

2. Citations and explanations

   see separate sheet

Prior Art

Reference is made to the following documents cited in the international search report:

D1: CH 677 054 A
D2: EP-A-0 481 528
D3: US-B-6 245 0921
D4: US-A-3 045 073
D5: DE 100 48 337 C
D6: US-B-6 430 2961
D7: WO 01/54457 A

Re Item V (novelty, inventive step, industrial applicability)

1. Technical field: Hearing aid.

2. The term *at least one structural part* of claim 1 of the present application has been interpreted in the light of the description, namely as representing the internal and external faces of the hearing aid (page 3, lines 18-27; Figure 1), the structural part being adapted to possibly form part of the hearing aid casing or the faceplate. The casing and the internal wall of claims 2 and 3, respectively, are interpreted to correspond to structural parts of the hearing aid.

3. The closest prior art document, D1, describes a method for manufacturing modules for electronic devices, e.g. hearing aids, in which a plurality of electronic components are mounted on flexprint substrate and electric leads are arranged in or on the flexprint. The leads interconnect the electronic components with electrical circuits which are glued on the flexprint substrate. The flexiprint therefore represents the mounting basis for the electronic components, the integrated circuits and the leads, the flexiprint being foldable in a compact unit which can be built in an electronic device, e.g. in a hearing aid.

   The subject-matter of claim 1 differs from D1 in that the leads which interconnect the electronic components are provided on the surface of the at least one structural part of the hearing aid, whereas in D1, the leads are arranged in or on a flexprint substrate.

   The hearing aid of **claim 1** allows to omit circuit boards so that the amount of necessary electrical leads and electronic components can be decreased. Furthermore, the hearing aid of claim 1 allows to place electronic components onto non-flat surfaces. A more compact hearing aid with reduced manufacturing costs can therefore be obtained.

   These features are neither known nor suggested by the documents D2-D7 relating to hearing aids. Indeed, these documents are not concerned with the constructional aspects of the leads on structural parts of the hearing aid.

   Claim 1 therefore is novel and involves an inventive step in the sense of Article 33(2) and (3) PCT.

4. **Claims 2-5 are dependent on claims 1** and as such also meet the requirements of the PCT with respect to novelty and inventive step (Article 33(2) and (3) PCT).

5. The application as defined in claims 1-5 is doubtless industrially applicable (Article 33(4) PCT).

6. Final remarks: **Claim 1** is unclear (Article 6 PCT) because the term *similar device* is vague and leaves the reader in doubt as to the subject-matter for which protection is sought.